United States Department of Agriculture
Agricultural Research Service
Animal Improvement Programs Laboratory
Bldg. 263, BARC-East
Beltsville, Maryland 20705-2350
Phone: (301) 504-8334
FAX: (301) 504-8092

February 17, 1997

SUBJECT: USDA-DHIA Active AI and Available Foreign Bulls Evaluations (February 1997)

TO: Executive Secretaries, Breed Associations
Managers, Dairy Records Processing Centers
Sire Analysts, Artificial-Insemination Organizations
State Extension Dairy Specialists Advising on the National Cooperative Dairy Herd Improvement Program and/or Dairy Cattle Breeding
Special Requesters of Active AI Bull Evaluations

FROM: H.D. Norman, Research Leader, AIPL H. Duane Norman

Enclosed are February 1997 USDA-DHIA genetic evaluations for bulls in active artificial-insemination (AI) service and foreign bulls with semen reported as available in the U.S. by their owners. The foreign bulls are in a separate list and were reported by the National Association of Animal Breeders (NAAB). Summary tables of evaluation means, standard deviations, and percentile levels also are enclosed.

Evaluations are included for bulls with 10 or more daughters and reported active by AI organizations and foreign bulls with semen reported as available in the U.S. through NAAB as of February 12, 1997. These evaluations are predicted transmitting abilities (PTA's) for milk, fat, and protein yields, fat and protein percentages, productive life (PL), and somatic cell score (SCS).

Economic values assigned to PTA's in the milk and fat dollars index (MF$) and in the milk, fat, and protein dollars index (MFP$) were based on a milk price of $12.30 per hundredweight of milk with 3.5-percent fat and 3.2-percent protein and differentials of 8.0 cents for fat and 20.0 cents for protein. These values are a prediction of price relationships that will apply when cows from this year's matings are being milked. They are not expected to change until the base change in 2000. Thus,

MF$ = $.095 (PTA milk) + $.80 (PTA fat)

MFP$ = $.031 (PTA milk) + $.80 (PTA fat) + $2.00 (PTA protein)

The cheese yield economic dollars index (CY$) is calculated for Ayrshires, Brown Swiss, Holsteins, Milking Shorthorns, and Red and Whites by

CY$ = $.002218 (PTA milk) + $1.9960 (PTA fat) + $1.7299 (PTA protein)

and for Guernseys and Jerseys by

CY$ = $.002218 (PTA milk) + $.80 (PTA fat) + $3.1876 (PTA protein)

The PTA's for component percentages were calculated with breed averages for cows born in 1990.

The net merit dollars index (NM$) is based on MFP$ discounted for feed cost and as well as on PTA's for PL and SCS:

NM$ = .7 (MFP$) + $11.30 (PTA PL) – $28.22 (PTA SCS – breed average SCS)

Average first-lactation SCS for cows born in 1990 were:

Ayrshire	3.15	Holstein	3.20
Brown Swiss	3.22	Jersey	3.30
Guernsey	3.35	Milking Shorthorn	2.88

Percentile ranking is based on NM$ for active AI bulls. The NM$ for each percentile was calculated from the distribution of active AI bulls for that breed (see enclosed table). These percentiles indicate where each bull's February 1997 NM$ ranks compared with evaluations of bulls active in July 1996. For breeds with relatively few active AI bulls, percentiles may have unusual characteristics, such as a single percentile category that encompasses a wide range for NM$.

Please refer to the Evaluation dates section in the enclosed memo "Changes in USDA-DHIA genetic evaluations (February 1997)" for important information regarding an additional evaluation in **May 1997**. Dates for receipt of input data will be announced soon.

Further information on the release of genetic evaluations is available at the Animal Improvement Programs Laboratory (AIPL) home page (**http://aipl.arsusda.gov)**.

Enclosures